

AMENDMENTS TO THE CLAIMS:

1.-53. (Cancelled)

54. (New) Instrumentation for treatment of the spine, comprising:

an elongate member extending along a longitudinal axis and including a deformable distal portion having an initial configuration for placement adjacent a spinal structure and an expanded configuration wherein said deformable distal portion is outwardly deformed to define at least one transverse projection, said at least one transverse projection arranged along a single transverse axis such that at least a portion of the spinal structure is uniaxially displaced along said transverse axis.

55. (New) The instrumentation of claim 54, wherein displacement of the at least a portion of the spinal structure is directionally controlled.

56. (New) The instrumentation of claim 54, wherein displacement of the at least a portion of the spinal structure is unidirectional.

57. (New) The instrumentation of claim 54, wherein outward deformation of said at least one transverse projection is selectively controlled to generate a controlled magnitude of force against the at least a portion of the spinal structure.

58. (New) The instrumentation of claim 54, wherein said expanded configuration defines a pair of said transverse projections arranged generally opposite one another along said transverse axis.

59. (New) The instrumentation of claim 54, wherein said elongate member comprises an inner actuator member disposed within an outer sleeve member, a distal portion of said sleeve member being outwardly deformed to define said at least one transverse projection in response to relative displacement between said actuator member and said sleeve member.

60. (New) The instrumentation of claim 59, wherein said relative displacement between said actuator member and said sleeve member is relative linear displacement.

61. (New) The instrumentation of claim 59, wherein said relative displacement between said actuator member and said sleeve member is regulated to generate a controlled magnitude of force against the at least a portion of the spinal structure.

62. (New) The instrumentation of claim 59, further comprising an actuator mechanism coupled between said actuator member and said sleeve member and being operable to impart said relative displacement therebetween.

63. (New) The instrumentation of claim 62, wherein said actuator mechanism comprises:

a first portion coupled to said actuator member; and

a second portion coupled to said sleeve member and engaged with said first portion;

and

wherein relative rotation between said first and second portions imparts relative linear displacement between said actuator member and said sleeve member to cause said distal portion of said sleeve member to reform from said initial configuration toward said expanded configuration.

64. (New) The instrumentation of claim 54, wherein said deformable distal portion comprises at least one flexible strip of material, said flexible strip of material having an outwardly buckled configuration defining said at least one transverse projection.

65. (New) The instrumentation of claim 64, wherein said deformable distal portion comprises a pair of said flexible strips of material disposed generally opposite one another, said pair of flexible strips of material defining a pair of transverse projections disposed generally opposite one another when transitioned to said outwardly buckled configuration.

66. (New) The instrumentation of claim 64, wherein said flexible strip of material has a predetermined shape to provide controlled transitioning to said outwardly

buckled configuration.

67. (New) The instrumentation of claim 66, wherein said predetermined shape including a series of arcuate portions.

68. (New) The instrumentation of claim 54, wherein said deformable distal portion defines a plurality of slots, said slots facilitating outward buckling of said deformable distal portion to define said at least one transverse projection.

69. (New) The instrumentation of claim 68, wherein each of said plurality of slots has a predetermined shape to provide controlled outward buckling.

70. (New) The instrumentation of claim 69, wherein said predetermined shape is at least partially comprised of an hour-glass shape.

71. (New) The instrumentation of claim 54, wherein said deformable distal portion comprises a plurality of elements flexibly interconnected in series to form a reformable structure, said reformable structure being collapsible to define said initial configuration and reformed to define said expanded configuration.

72. (New) The instrumentation of claim 71, wherein said plurality of elements are arranged in a substantially uniform orientation when in said initial configuration, and

wherein at least some of said plurality of elements are arranged in a non-uniform orientation when in said expanded configuration.

73. (New) The instrumentation of claim 72, wherein said substantially uniform orientation defines a substantially rectangular-shaped profile; and wherein said non-uniform orientation defines a substantially triangular-shaped profile.

74. (New) The instrumentation of claim 54, wherein said deformable distal portion is at least partially formed of a shape-memory material, said deformable distal portion being reformed from said initial configuration toward said expanded configuration in response to the imposition of stress and automatically reformed back toward said initial configuration upon removal of said stress.

75. (New) Instrumentation for treatment of the spine, comprising:
an elongate member extending along a longitudinal axis and including a deformable distal portion having an initial relaxed configuration for placement adjacent a spinal structure and a stressed configuration wherein said deformable distal portion is outwardly deformed to define at least one transverse projection, said at least one transverse projection arranged along a single transverse axis, wherein said deformable distal portion is controllably transitioned from said initial configuration to said stressed configuration to generate a controlled magnitude of force against at least a portion of the spinal structure

such that at least a portion of the spinal structure is uniaxially displaced along said transverse axis.

76. (New) The instrumentation of claim 75, wherein said stressed configuration of said deformable distal portion defines a pair of said transverse projections arranged generally opposite one another along said transverse axis.

77. (New) The instrumentation of claim 75, wherein said elongate member comprises a first member and a second member, a distal portion of said second member being outwardly deformed to define said at least one transverse projection in response to relative displacement between said first and second members.

78. (New) The instrumentation of claim 77, wherein said relative displacement between said first and second members is regulated to selectively control transitioning of said deformable distal portion from said initial configuration to said stressed configuration.

79. (New) The instrumentation of claim 78, further comprising an actuator mechanism coupled between said first and second members and being operable to regulate said relative displacement between said first and second members to selectively control said transitioning of said deformable distal portion from said initial configuration to said stressed configuration.

80. (New) A method for treatment of the spine, comprising:

providing an instrument including a deformable distal portion having an insertion configuration and a deformed configuration, the deformed configuration defining at least one transverse projection arranged along a single transverse axis;

positioning the deformable distal portion adjacent a spinal structure while in the insertion configuration; and

deforming the distal portion toward the deformed configuration to uniaxially displace at least a portion of the spinal structure along the transverse axis.

81. (New) The method of claim 80, wherein the deforming is directionally controlled.

82. (New) The method of claim 80, further comprising:

deforming the distal end portion back toward the insertion configuration; and
removing the distal end portion from the spinal structure.

83. (New) The method of claim 80, wherein the positioning comprises inserting the deformable distal portion through an outer wall of a vertebral body; and

wherein displacement of the at least a portion of the spinal structure comprises compacting cancellous bone to form a cavity within the vertebral body.

84. (New) The method of claim 80, wherein the positioning comprises inserting the deformable distal portion through an outer wall of a vertebral body; and

wherein displacement of the at least a portion of the spinal structure comprises at least partially reducing a compression fracture in the vertebral body.

85. (New) The method of claim 80, wherein the positioning comprises inserting the deformable distal portion into an intervertebral disc space between adjacent vertebral bodies; and

wherein displacement of the at least a portion of the spinal structure comprises exerting a force onto the adjacent vertebral bodies and distracting the intervertebral disc space.

86. (New) The method of claim 80, wherein the deforming of the distal portion toward the deformed configuration comprises selectively controlling the deforming to generate a controlled magnitude of force against the at least a portion of the spinal structure.

87. (New) The method of claim 80, wherein the instrument includes a first member and a second member engaged with the first member, the second member comprising the deformable distal portion, the deforming of the distal portion occurring in response to relative displacement between the first and second members, the relative displacement between the first and second members being regulated to generate a controlled magnitude of force against the at least a portion of the spinal structure.

88. (New) A method for treatment of the spine, comprising:

providing an instrument including a first member and a second member engaged with the first member, the second member including a deformable distal portion having an insertion configuration and a deformed configuration;

positioning the deformable distal portion adjacent a spinal structure while in the insertion configuration; and

deforming the distal portion toward the deformed configuration in response to relative displacement between the first and second members, the deformed configuration displacing at least a portion of the spinal structure.

89. (New) The method of claim 88, wherein the relative displacement between the first and second members is regulated to control the deforming and to generate a controlled magnitude of force against the at least a portion of the spinal structure.

90. (New) The method of claim 88, wherein the deforming is directionally controlled.

91. (New) The method of claim 88, wherein the deformed configuration of the distal portion defines at least one transverse projection arranged along a single transverse axis; and wherein the deforming of the distal portion toward the deformed configuration uniaxially displaces at least a portion of the spinal structure along the transverse axis.

92. (New) The method of claim 88, further comprising:
inserting a cannula having a working channel through the skin and tissue of a patient;
positioning a distal end of the cannula adjacent a vertebral body; and
inserting the distal end portion of the instrument through the working channel to access
the vertebral body.

93. (New) The method of claim 92, further comprising inserting a viewing element
into a working channel of the cannula to provide visualization of the vertebral body.